SEQUENCE LISTING

<110> David J. Glass

<120> ION CHANNEL RECEPTOR AND USES THEREOF

<130> REG 860A

<140> Not Yet Known
<141> Filed Herewith

<150> 60/397,290
<151> 2003-07-19

<160> 4

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 1837
<212> DNA
<213> human

<400> 1

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<210> 2
<211> 376
<212> PRT
<213> human

<400> 2
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Gln His Ala Ala Leu Pro Gly Leu Ala Glu Leu Pro Ala Arg Trp Ala
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Leu Pro Arg Gly Ala Gly Gly Asp Gly Pro Ala Asp Arg Leu Pro Arg
        35   40   45
Gly Gly Gly Ala Ser Ala Ala Ala Ala Ala Ala Ala Ser Gly Ala
    50   55   60
Leu Leu Gly Ala Tyr Leu Glu Arg His Gly Pro Pro Glu Ala Ser Glu
65   70   75   80
Leu Pro Glu Pro Gly Gly Ala Gly Gly Pro Gly Ser Gly Gly Gly Gly
                85   90   95
Val Val Val Gly Val Ala Glu Val Arg Asn Trp Arg Cys Cys Cys Leu
            100   105   110
Gly Ser Thr Cys Trp Cys Arg Ser Leu Val Leu Val Cys Val Leu Ala
        115   120   125
Ala Leu Cys Phe Ala Ser Leu Ala Leu Val Arg Arg Tyr Leu His His
    130   135   140
Leu Leu Leu Trp Val Glu Ser Leu Asp Ser Leu Leu Gly Val Leu Leu
145   150   155   160
Phe Val Val Gly Phe Ile Val Val Ser Phe Pro Cys Gly Trp Gly Tyr
                165   170   175
Ile Val Leu Asn Val Ala Ala Gly Tyr Leu Tyr Gly Phe Val Leu Gly
            180   185   190
Met Gly Leu Met Met Val Gly Val Leu Ile Gly Thr Phe Ile Ala His
        195   200   205
Val Val Cys Lys Arg Leu Leu Thr Ala Trp Val Ala Ala Arg Ile Gln
    210   215   220
Ser Ser Glu Lys Leu Ser Ala Val Ile Arg Val Val Glu Gly Gly Ser
225   230   235   240
Gly Leu Lys Val Val Ala Arg Leu Thr Pro Ile Pro Phe Gly Leu Gln
                245   250   255
Asn Ala Val Phe Ser Ile Thr Asp Leu Ser Leu Pro Asn Tyr Leu Met
            260   265   270
Ala Ser Ser Val Gly Leu Leu Pro Thr Gln Leu Leu Asn Ser Tyr Leu
        275   280   285
Gly Thr Thr Leu Arg Thr Met Glu Asp Val Ile Ala Glu Gln Ser Val
        290   295   300
Ser Gly Tyr Phe Val Phe Cys Leu Gln Ile Ile Ile Ser Ile Gly Leu
305   310   315   320
Met Phe Tyr Val Val His Arg Ala Gln Val Glu Leu Asn Ala Ala Ile
            325   330   335
Val Ala Cys Glu Met Glu Leu Lys Ser Ser Leu Val Lys Gly Asn Gln
        340   345   350
Pro Asn Thr Ser Gly Ser Ser Phe Tyr Asn Lys Arg Thr Leu Thr Phe
        355   360   365
Ser Gly Gly Gly Ile Asn Val Val
    370   375

<210> 3
<211> 1143
<212> DNA
<213> mouse

<400> 3

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cgctcggagg accgccttcc ccgcgggggc ggggccagcg cggcggcggc tgctgctgcg 180
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gtggtcgggg tggccgaggt gagaaactgg cgctgctgct gcctcggcag cacctgttgg 360
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gta
                                                                   1143
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<210> 4
<211> 381
<212> PRT
<213> mouse

<400> 4

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Gln His Ala Gly Arg Thr Gly Val Val Glu Gln Pro Gly Arg Trp Ala
                20                  25                  30
Pro Glu Arg Thr Ala Gly Gly Asp Arg Ser Glu Asp Arg Leu Pro Arg
                35                  40                  45
Gly Gly Gly Ala Ser Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ser
    50                  55                  60
Gly Ala Leu Leu Gly Ala Tyr Leu Glu Arg His Gly Leu Pro Ala Ala
65                  70                  75                  80
Ser Asp Leu Pro Ala Pro Ala Gly Ala Leu Ala Gly Gly Pro Gly Ser
                85                  90                  95
Gly Gly Gly Val Val Val Gly Val Ala Glu Val Arg Asn Trp Arg Cys
                100                 105                 110
Cys Cys Leu Gly Ser Thr Cys Trp Cys Arg Ser Leu Val Leu Val Cys
            115                 120                 125
Val Leu Ala Ala Leu Cys Phe Ala Ser Leu Ala Leu Val Arg Arg Tyr
    130                 135                 140
Leu Gln His Leu Leu Leu Trp Val Glu Ser Leu Asp Ser Leu Leu Gly
145                 150                 155                 160
Val Leu Leu Phe Val Val Gly Phe Ile Val Ser Phe Pro Cys Gly
    165                 170                 175
Trp Gly Tyr Ile Val Leu Asn Val Ala Ala Gly Tyr Leu Tyr Gly Phe
            180                 185                 190
Val Leu Gly Met Gly Leu Met Val Val Gly Val Leu Ile Gly Thr Phe
            195                 200                 205
Ile Ala His Val Val Cys Lys Arg Leu Leu Thr Ala Trp Val Ala Ala
    210                 215                 220
```

3

```
Arg Ile Gln Asn Ser Asp Lys Leu Ser Ala Val Ile Arg Val Val Glu
225             230                 235                         240
Gly Gly Ser Gly Leu Lys Val Val Ala Leu Ala Arg Leu Thr Pro Ile
                245                 250                     255
Pro Phe Gly Leu Gln Asn Ala Val Phe Ser Ile Thr Asp Val Pro Leu
            260                 265                 270
Pro Ser Tyr Leu Met Ala Ser Ser Ala Gly Leu Leu Pro Thr Gln Leu
            275                 280                     285
Leu Asn Ser Tyr Leu Gly Thr Thr Leu Arg Thr Met Glu Asp Val Ile
    290                 295                 300
Ala Glu Gln Ser Leu Ser Gly Tyr Phe Val Phe Cys Leu Gln Ile Val
305                 310                 315                     320
Ile Ser Ile Gly Leu Met Phe Tyr Val Val His Arg Ala Gln Val Glu
                325                 330                     335
Leu Asn Ala Ala Ile Val Ala Cys Glu Met Glu Leu Lys Thr Ser Leu
            340                 345                 350
Val Lys Gly Asn Gln Ser Asp Pro Ser Gly Ser Ser Phe Tyr Asn Lys
        355                 360                 365
Arg Thr Leu Thr Phe Ser Gly Gly Gly Ile Asn Ile Val
    370                 375                 380
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4